

CLAIMS

What is claimed is:

- 1 1. A scanning method, comprising:
  - 2 a) receiving data at a network element;
  - 3 b) identifying a load on the network element; and
  - 4 c) conditionally scanning the data at the network element based on the load
  - 5 on the network element.
- 1 2. The method as recited in claim 1, wherein the network element includes a  
2 gateway.
- 1 3. The method as recited in claim 1, wherein the load includes a backlog of  
2 data to be scanned at the network element.
- 1 4. The method as recited in claim 1, wherein an amount of scanning  
2 completed at the network element is a function of the load on the network  
3 element.
- 1 5. The method as recited in claim 4, wherein the data is partially scanned at  
2 the network element if the load on the network element is greater than a  
3 predetermined amount.
- 1 6. The method as recited in claim 5, wherein the data is completely scanned  
2 at the network element if the load on the network element is less than the  
3 predetermined amount.
- 1 7. The method as recited in claim 1, and further comprising storing a status  
2 of the scanning at the network element.

1     8.     The method as recited in claim 7, wherein an additional network element  
2     conditionally scans the data based on the status.

1     9.     The method as recited in claim 8, wherein the additional network element  
2     includes a server.

1 10. A computer program product for scanning, comprising:  
2 a) computer code for receiving data at a network element;  
3 b) computer code for identifying a current load on the network element; and  
4 c) computer code for conditionally scanning the data at the network element  
5 based on the load on the network element.

1 11. A scanning system, comprising:

2 a) logic for receiving data at a network element;

3 b) logic for identifying a current load on the network element; and

4 c) logic for conditionally scanning the data at the network element based on

5 the load on the network element.

1 12. A scanning method, comprising:

2 a) receiving data at a network element;

3 b) determining whether there is a request for the data;

4 c) conditionally scanning the data at the network element based on whether

5 there is a request for the data; and

6 d) transmitting the data in response to the request.

1    13.    The method as recited in claim 12, wherein the network element includes  
2           a server.

1     14.     The method as recited in claim 12, wherein the request for the data is  
2     received from a user device.

- 1 15. The method as recited in claim 12, wherein the data is partially scanned at  
2 the network element if it is determined that there is a request for the data.
- 1 16. The method as recited in claim 15, wherein the data is completely scanned  
2 at the network element if it is determined that there is not a request for the  
3 data.
- 1 17. The method as recited in claim 12, and further comprising storing a status  
2 of the scanning at the network element.
- 1 18. The method as recited in claim 17, wherein an additional network element  
2 conditionally scans the data based on the status.
- 1 19. A computer program product for scanning, comprising:  
2 a) computer code for receiving data at a network element;  
3 b) computer code for determining whether there is a request for the data;  
4 c) computer code for conditionally scanning the data at the network element  
5 based on whether there is a request for the data; and  
6 d) computer code for transmitting the data in response to the request.
- 1 20. A scanning system, comprising:  
2 a) logic for receiving data at a network element;  
3 b) logic for determining whether there is a request for the data;  
4 c) logic for conditionally scanning the data at the network element based on  
5 whether there is a request for the data; and  
6 d) logic for transmitting the data in response to the request.
- 1 21. A scanning method, comprising:  
2 a) receiving data at a network element;

- 3 b) determining an extent to which the data was previously scanned by  
4 another network element;
- 5 c) conditionally scanning the data at the network element based on the extent  
6 to which the data was previously scanned by another network element.
- 1 22. The method as recited in claim 21, wherein the network element includes  
2 a user device.
- 1 23. The method as recited in claim 21, wherein an amount of scanning  
2 completed at the network element is a function of the extent to which the  
3 data was previously scanned by another network element.
- 1 24. The method as recited in claim 23, wherein an amount of scanning  
2 completed at the network element is sufficient to complete an entirety of  
3 the scanning.
- 1 25. The method as recited in claim 23, wherein the extent to which the data  
2 was previously scanned by another network element is identified in a log  
3 accessible by the network element.
- 1 26. The method as recited in claim 21, and further comprising storing a status  
2 of the scanning at the network element.
- 1 27. The method as recited in claim 26, wherein an additional network element  
2 conditionally scans the data based on the status.
- 1 28. A computer program product for scanning, comprising:  
2 a) computer code for receiving data at a network element;  
3 b) computer code for determining an extent to which the data was previously  
4 scanned by another network element;

- 5 c) computer code for conditionally scanning the data at the network element  
6 based on the extent to which the data was previously scanned by another  
7 network element.

1 29. A scanning system, comprising:

- 2 a) logic for receiving data at a network element;  
3 b) logic for determining an extent to which the data was previously scanned  
4 by another network element;  
5 c) logic for conditionally scanning the data at the network element based on  
6 the extent to which the data was previously scanned by another network  
7 element.

1 30. A method for efficient scanning, comprising:

- 2 a) receiving data from a network at a gateway coupled between a network  
3 and at least one data server;  
4 b) identifying a backlog of data to be scanned in the gateway;  
5 c) if the backlog is greater than a predetermined amount, performing a partial  
6 scan utilizing a gateway scanner at the gateway;  
7 d) if the backlog is less than the predetermined amount, performing a  
8 complete scan utilizing the gateway scanner at the gateway;  
9 e) storing a first status of the scanning performed utilizing the gateway  
10 scanner in a database coupled to the gateway scanner;  
11 f) passing the data from the gateway scanner to the data server coupled  
12 thereto;  
13 g) reading the first status from the database utilizing a data server scanner at  
14 the data server;  
15 h) determining whether there is a request for the data from at least one user  
16 device coupled to the data server;  
17 i) if it is determined that there is a request for the data from the user device,  
18 performing a partial scan on the data;

- 19 j) storing a second status of the scanning performed utilizing the data server  
20 scanner in the database which is coupled thereto;  
21 k) transmitting the data to the user device;  
22 l) reading the second status from the database utilizing a user device scanner  
23 at the user device;  
24 m) determining whether the scanning of the data is complete based on the  
25 first status and the second status; and  
26 n) if it is determined that the scanning of the data is not complete,  
27 completing the scanning of the data utilizing the user device scanner at the  
28 user device.

- 1 31. The method as recited in claim 30, and further comprising storing a third  
2 status of the scanning performed utilizing the user device scanner in the  
3 database which is coupled thereto.